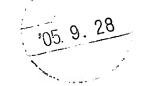
### PATENT COOPERATION TREATY

## **PCT**

# INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty) (PCT Article 36 and Rule 70)



Applicant's or agent's file reference R-81	FOR FURTHER ACTION	See Form PCT/IPEA/416				
International application No.	International filing date (day/mor		(year)			
PCT/JP2004/016475	29.10.20	04 29.10.	2003			
International Patent Classification (IPC) or Int.Cl. 7 F28F9/02	national classification and IP					
Applicant SHOWA DENKO K.K.						
This report is the international preliminary examination report, established by this International Preliminary Examining     Authority under Article 35 and transmitted to the applicant according to Article 36.						
sheets, including this cover sheet.						
This REPORT consists of a total of      This report is also accompanied by ANNEXES, comprising:						
sheets, as follows:						
sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the						
Administrative l	1line choose but wh	nich this Authority considers contain an an	nendment that goes			
sheets which su	losure in the international app	plication as filed, as indicated in item 4 of	Box No. I and the			
sheets which supersede earner sheets, but which this retained in item 4 of Box No. I and the beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.						
b. T a total of (indicate type and number of electronic carrier(s)) containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).						
4. This report contains indications	relating to the following items	<del>.</del>	-			
₩ Box No. I Basis of the	the report					
Box No. II Priority	11 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1					
Box No. III Non-estab	blishment of opinion with regard to novelty, inventive step and industrial applicability					
Box No. IV Lack of u	of unity of invention					
Box No. V Reasoned citations a	Box No. V  Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement					
, Bentiner	documents cited					
	defects in the international application					
Box No. VIII Certain observations on the international application						
Date of completion of this report						
Date of submission of the demand  16.05.2005		16.09.200	5			
Name and mailing address of the IPEA	/JP	Authorized officer	3L 8610			
		YOICHI NAGASAKI				
Japan Patent Office		Telephone No. +81-3-3581-1101 Ext	. 3337			
3-4-3, Kasumigaseki, Chiyoda-ku, Tokyo 100-8915, Japan Telephone No. +81-3-3581-1101 Ext. 3337						

### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/JP2004/016475

Box No. I	Basis of the report					
-	rd to the language, this report is based on the international application in the language in which it was filed, unless indicated under this item.					
This	s report is based on translations from the original language into the following language					
whice 	th is the language of a translation furnished for the purposes of: international search (under Rules 12.3 and 23.1(b))					
Г	publication of the international application (under Rule 12.4)					
·	international preliminary examination (under Rules 55.2 and/or 55.3)					
	rd to the <b>elements</b> of the international application, this report is based on (replacement sheets which have been to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed"					
and are n	ot annexed to this report):					
<b>▽</b> the i	nternational application as originally filed/furnished					
T the d	lescription:					
page	s as originally filed/furnished					
page						
page						
	claims:					
page						
page						
page						
page	s* received by this Authority on					
the c	frawings:					
page	as originally filed/furnished					
page	s* received by this Authority on					
page	s* received by this Authority on					
T a sec	quence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.					
3. The	amendments have resulted in the cancellation of:					
Г	the description, pages					
Г	the claims, Nos.					
	the drawings, sheets/figs					
Γ	the sequence listing (specify):					
	any table(s) related to sequence listing (specify):					
made	report has been established as if (some of) the amendments annexed to this report and listed below had not been e, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box e 70.2(c)).					
Г	the description, pages					
Г	the claims, Nos.					
Г	the drawings, sheets/figs					
Г	the sequence listing (specify):					
_	any table(s) related to sequence listing (specify):					
* 16 te 4						
і і нет 4 арр	lies, some or all of those sheets may be marked "superseded."					

#### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/JP2004/016475

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement				
1. Statemen	nt .			
Novelty (N)	Claims		YES	
		Claims	1-41	NO
Inventive step (IS)	Claims		YES	
	Claims	1-41	NO	
Industrial applicability (IA)	Claims	1-41	YES	
	Claims		NO	

- 2. Citations and explanations(Rule 70.7)
- 1) The following document has been considered for the purpose of this report:
- D1: JP 2003-75024 A (SHOWA DENKO K. K.)2003.03.12
- 2) The subject matter of claim 1-41 does not appear to be novel and does not involve an inventive step.

D1 discloses a heat exchanger comprising a refrigerant inlet-outlet tank 10 and a refrigerant turn tank 50 arranged as spaced apart from each other. The refrigerant turn tank 50 being provided with a partitioning means 71, which has refrigerant passing holes 71a. The refrigerant inlet-outlet tank 10 provided with a divided resistance plate 40, 42, which has refrigerant passing holes. The heat exchange tubes joined to the refrigerant turn tank having their end portions inserted in the refrigerant turn tank.

The skilled person would regard it as a designing matter to project end portions of the heat exchange tubes beyond the refrigerant passing holes.